From:

Golden, Derrick

Sent: To: Monday, May 13, 2013 11:21 AM Thor Helgason; Barbara Weir

Cc:

jennifer.mcweeney@state.ma.us; Muench, Gretchen

Subject:

RE: Acton

Thor,

Thank you for providing these responses to the letter we received from the town of Acton, per my request. This information will be helpful when we review the Grace petition request to shutdown the NE area treatment system.

Derrick

----Original Message----

From: Thor Helgason [mailto:thelgas@demaximis.com]

Sent: Friday, May 10, 2013 6:13 PM

To: Golden, Derrick

Cc: jennifer.mcweeney@state.ma.us

Subject: Acton

Derrick -

Per your request, Grace would like to provide some clarification in response to the Town of Acton comments on the February 25, 2013 letter

RE: Evaluation of Northeast Area Remedial Action for the Acton Site ("Evaluation"). In February, Grace provided to EPA and MassDEP its evaluation of the Northeast Area groundwater treatment remedy as required by the ROD. That evaluation concluded that the active remedy had performed as expected and that the criteria for shutdown of the active remedy had been met. We recently received a copy of the Town of Acton's comments on that evaluation. The Town opposes shutdown of the remedy. Based on their comments, it appears that there is some confusion on the Town's part regarding the objectives of the remedy for the Northeast Area. Shut down of the Northeast Area extraction and treatment system does not signify completion of the remedial action for the Northeast Area as implied by the Town. Rather, shut down represents a transition from an extraction, treatment and injection to a Monitored Natural Attenuation (MNA) remedy as contemplated in the ROD.

The original Proposed Plan (July 2005) for groundwater contamination at the Site called for a MNA remedy for the Northeast Area of the Site. MNA relies on natural processes including

dilution, natural biological and chemical degradation, adsorption and precipitation, to achieve remedial objectives. As stated in the ROD: "because modeling results indicated that the time for restoration of the Northeast Area was not significantly different between active remediation and MNA, extraction wells were not initially included as a component of the design... for groundwater in this part of the Site. Several factors supported this conclusion including: (1) concerns over potential impacts that active pumping would have on the Town's public water supply wells; (2) the ability to secure access agreements on private property within a reasonable period of time; (3) the lack of current risk from exposure to contaminated groundwater; (4) the amount (approximately 24 gallons) of VDC remaining in groundwater in this area of the Site; and (5) the Town's moratorium on installation of private wells in the Northeast Area preventing exposure to groundwater through irrigation and other purposes." (ROD pg. 67)

modified the Proposed Plan and included limited groundwater extraction, treatment and injection to "target areas in the Northeast Area where mass reduction of high residual VOC concentrations in groundwater can be cost-effectively accomplished with minimal impacts to the Town's public water supply wells or private property." (ROD, pg. 68). A key point here is that the groundwater system was designed to pump a targeted portion of the Northeast Area. The ROD specifically stated that "given the relatively low estimated volume of contamination that remains in the aquifer, EPA assumes that this aggressive targeted pumping would continue for approximately three years. At the end of this three-year time frame, and, if necessary, every two years thereafter, an evaluation will be conducted to determine if pumping can be discontinued." (ROD pg. 69) The Evaluation submitted by Grace

Following the public comment period for the Proposed Plan, EPA issued the ROD which slightly

With this background, shut down of the Northeast Area extraction and treatment system is not completion of the remedial action, but rather a transition from active remediation to MNA. The Town's comments appear to confuse the requirements for final certification of completion of the Site remedy with the requirements that would allow a transition of the groundwater remedy in the Northeast Area. The Town's argument is basically that the Northeast Area groundwater extraction and treatment system cannot be shut down because the ROD requires that Interim Groundwater Cleanup Levels (IGCLs) be met (and then a risk assessment be

in February was in response to this ROD requirement.

performed) before the remedy is complete. However, that requirement applies to the Certification of Completion of the Site remedy, not to the Northeast Area groundwater extraction, treatment and injection system. The criteria to be evaluated for determining whether a transition of the Northeast Area groundwater remedy to MNA are quoted in the Town's letter, but otherwise simply ignored by the Town. These criteria are provided at p. 69 of the ROD. Specifically, the evaluation was to examine the following three issues:

• The effectiveness of the extraction and treatment system; • Contaminant concentrations at each of the three School Street Wells and whether they are meeting, and are expected to continue to meet MCLs; and • Input from Acton Water District regarding yield and drawdown.

Attainment of IGCLs is not a requirement for the Northeast Area groundwater remedy transition.

Grace's February 25 Evaluation addressed each of the required criteria and demonstrated that shutdown would be appropriate. The Town's comments do not provide any basis for disputing any of the technical conclusions provided in the February 25 Evaluation.

Aside from these criteria, the February 25 Evaluation provides a greater reason to shut the system down -- operation of the system appears to be pulling Linde-related EPH and VPH contamination to the north.

For the reasons stated in the February 25 Evaluation, shutdown is appropriate. The Town's letter misses the criteria for shutting down the system under the provisions of the ROD and in the process misapplies the ROD in their arguments. If EPA focuses on the ROD requirements applicable to the Northeast Area groundwater extraction and treatment system, rather than the overall Site remedy, it should become apparent that the Town has not provided a technical basis for EPA to disagree with the recommendation for system shutdown.

Thank you for your attention to this matter. If you have any questions or want to discuss this further, please do not hesitate to call me at 781-642-8775.

Thor

>>> "Golden, Derrick" <Golden.Derrick@epa.gov> 05/02/13 10:20 AM >>>

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I just picked up your voice message. Sorry for not responding sooner but I had to take some furlough days due the sequestration/federal budget issues.

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For our review it would be helpful to have an e-mail from you which provides Grace's thoughts/responses on the letter from the town. It does not need to be a formal letter. My intent is to provide you with EPA comments on the annual groundwater report before we comment on the NE area petition. I had been waiting from comments from the drinking water folks at MassDEP, which I recently received and plan to work on that next week.

Derrick

Derrick S. Golden
Remedial Project Manager
United States Environmental Protection Agency Region 1 - EPA New England
5 Post Office Square
Mail Code OSRR07-4
Boston, MA 02109-3912

Tel: 617-918-1448 Fax: 617-918-0448

e-mail: golden.derrick@epa.gov

From: Sent: Thor Helgason [thelgas@demaximis.com]

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Derrick

Derrick S. Golden Remedial Project Manager United States Environmental Protection Agency Region 1 - EPA New England 5 Post Office Square Mail Code OSRR07-4 Boston, MA 02109-3912

Tel: 617-918-1448 Fax: 617-918-0448

e-mail: golden.derrick@epa.gov

From:

Golden, Derrick

Sent:

Thursday, May 09, 2013 4:10 PM

To:

Chris Allen; Doug Halley; Matt Mostoller

Cc:

Barbara Weir; McWeeney, Jennifer (DEP); Jane Ceraso; 'info@actonaces.org'

Subject:

RE: W: April 2013 Montly Remedial Action Status Report - W. R. Grace (Acton Plant)

Superfund site - Acton & Concord, MA

Attachments:

WR Grace April 2013 monhtly RD-RA_status report.pdf

All,

Attached is the April 2013, monthly remedial action status report and the effluent results for the groundwater treatment systems at the W. R. Grace (Acton Plant) Superfund site in Acton & Concord, MA.

A hard copy has been place in the Administrative Record for the site and sent it to the Acton library.

Derrick S. Golden Remedial Project Manager United States Environmental Protection Agency Region 1 - EPA New England 5 Post Office Square Mail Code OSRR07-4 Boston, MA 02109-3912

Tel: 617-918-1448 Fax: 617-918-0448

e-mail: golden.derrick@epa.gov

From: Golden, Derrick

Sent: Wednesday, April 10, 2013 3:44 PM To: Chris Allen; Doug Halley; Matt Mostoller

Cc: Barbara Weir; McWeeney, Jennifer (DEP); Jane Ceraso; 'info@actonaces.org'

Subject: W: March 2013 Montly Remedial Action Status Report - W. R. Grace (Acton Plant) Superfund site - Acton &

Concord, MA

All.

Attached is the March 2013, monthly remedial action status report and the effluent results for the groundwater treatment systems at the W. R. Grace (Acton Plant) Superfund site - Acton & Concord, MA.

A hard copy has also been sent to the library.

Derrick S. Golden
Remedial Project Manager
United States Environmental Protection Agency
Region 1 - EPA New England
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e-mail: golden.derrick@epa.gov

—<u>¥</u> de maximis, inc.

135 Beaver Street 4th Floor Waltham, MA 02452 (781) 642-8775 (781) 642-1078 FAX

May 6, 2013

Mr. Derrick Golden
United States Environmental Protection Agency
5 Post Office Square
Mail Code OSRR07-4
Boston, MA 02109-3912

Ms. Jennifer McWeeney
Massachusetts Department of Environmental Protection
One Winter Street
Boston, MA 02108

RE: Progress Report for April 2013
W.R. Grace Acton Superfund Site

Dear Mr. Golden and Ms. McWeeney:

On behalf of W.R. Grace, this Progress Report describes W. R. Grace's activities at the Acton Site during the month of April 2013:

I. Action Taken

Northeast Area Groundwater:

- Operated and maintained the Northeast Area Groundwater system. A summary of the average and instantaneous flow rates from the system, and sampling results, is attached.
- Performed the monthly system sampling on April 16, 2013. The results are attached and document continued compliance with the discharge criteria.

Monthly Progress Report – April 2013 W.R. Grace Acton Superfund Site May 6, 2013 Page 2 of 3

Landfill Area Groundwater:

- Operated the Landfill Area Treatment System using a solution of 25 ug/l ADX added after the metals removal system, and prior to the Purifics photo-catalytic oxidation unit. Sampling performed on April 16 2013 confirms this approach treats the 1,4-dioxane to below 3 ug/l. A summary of the results from that sampling event is attached.
- Redeveloped wells SWLF-2 and WLF.

II. Activities Scheduled for the Next Two Reporting Periods (May through June, 2013)

Northeast Area Groundwater:

Shut down and decommission the NE Area treatment system, pending EPA approval.

Landfill Area Groundwater:

Continue system operation using the ADX dosage of 25 ug/l solution.

Other:

 Perform the first round of the 2013 wetlands vegetation monitoring (the second round will be performed in August).

III. Problems Encountered and Schedule Modifications

None this reporting period.

IV. Community Relations Activities

None this reporting period.

Monthly Progress Report – April 2013 W.R. Grace Acton Superfund Site May 6, 2013 Page 3 of 3

Please do not hesitate to call me at 781-642-8775, should you have any questions.

Sincerely,

de maximis,inc.

Thor Helgason

CC: Robert Medler - Remedium Group

Lynne Gardner - Remedium Group

Anne Sheehan – GeoTrans Dave Fuerst – O & M, Inc.

Jack Guswa - JG Environmental

	Standard	1772013	2/6/2013	3/5/2013	4/16/2013
Influent (NE-1)					
VDC	NA	36	35	33	38
Benzene	NA.	1.2	1.1	-	-
Vinyl Chloride	NA.	1.4	1.2	U (0.5)	1.2
Arsenic, Total	Y	4.5	4.5	4.3	4.3
Iron. Total	NA	U (50)	110	22 J	27 J
Manganese, Total	NA	65	62	29	65 B
ЕРН	٠				
2-Methylnaphthalene	NA	U (9.6)	0.071 J	0.12 J	U (0.96)
Acenaphthene	NA	U (9.6)	U (0.48)	0.08 J	U (0.96)
Acenaphthylene	NA	U (9.6)	U (0.29)	U (0.29)	U (0.29)
Anthracene	NA	U (9.6)	U (0.48)	0.033 J	U (0.96)
Benzo(a)anthracene	NA	U (9.6)	U (0.29)	U (0.29)	U (0.29)
Benzo(a)pyrene	NA	(9.6) D	U (0.17)	U (0.19)	U(0.19)
Benzeo(b)fluoranthene	NA	0.69.0	U (0.29)	U (0.29)	U (0.29)
Benzo(g,h,i)perylene	NA	U (9.6)	U (0.48)	U (0.48)	U (0.48)
Benzo(k)fluoranthene	NA	U (9.6)	U (0.29)	U (0.29)	U (0.29)
Chrysene	NA	U (9.6)	U (0.48)	U (0.96)	U (0.96)
Dibenz(a,h)anthracene	NA	U (9.6)	U (0.48)	U (0.48)	U (0.48)
Fluoranthene	NA	U (9.6)	U (0.48)	0.087 J	U (0.96)
Fluorene	NA	U (9.6)	U (0.48)	0.099 J	U (0.96)
Indeno(1,2,3-cd)pyrene	NA	U (9.6)	U (0.48)	U (0.48)	U (0.48)
Naphthalene	NA	0.69.0	0.11 JB	0.24 J	U (0.96)
Phenanthrene	NA	U (9.6)	0.062 JB	0.26 J	0.27 JB
Pyrene	NA	U (9.6)	U (0.48)	U (4.8)	U (4.8)
Aliphatics, C19-C36	NA	(96) n	U (98)	U(100)	U (49)
Aliphatics, C9-C18	Y'A	(96) N	O (98)	U (100)	U (49)
Aromatics, C11-C22, adjusted VPH	NA	(96) _D	O (98)	U (100)	U (50)
Benzene	NA.	1.2		-	-
Ethylbenzene	NA	U(I)	U(1)	U(I)	U(1)
Methyl tert-butyl ether	NA	n(i)	(I) n	U(1)	(I) O
m&p Xylene	NA	U(2)	U(2)	U(2)	U(2)
Naphthalene	NA	U(I)	U(1)	0(1)	U(1)
o-Xylene	NA	U(I)	U(I)	U(1)	U(I)
Toluene	NA	(I) n	U(1)	U(1)	(i) n
C5-C8 Aliphatics, adjusted	NA	U(10)	U (100)	U (100)	U(5)
C9-C10 Aromatics	NA	U(10)	U(100)	U (100)	U(5)
C9-C12 Aliphatics, adjusted	NA	3.1	2.7 J	2.8 J	2.9 J
Effluent					
VDC	7	(E)n	(I) n	U(I)	U(1)
Benzene	'n	n(I)	(E) n	(i) n	U(1)
Vinyl Chloride	7	U (0.5)	U (0.5)	U (0.5)	U(I)
1,4-Dioxane	m	8.1	1.9	1.9	2.1
Arsenic, Total	10	4.3	4.2	4.2	4.3
Iron, Total	NA	92	160	130	74
		•			

Concentrations in $\mu g/L$. U (1) - not detected at limit indicated in parentheses. NA - Not applicable

Monthly Extraction Rates for Northeast Area Extraction Well NE-1

	Average	Instantaneous
Jan-13	19.2	19.9
Feb-13	19.8	19.9
Mar-13	19.5	19.6
Apr-13	18.9	19.4
Average - flow rate calculated using mor nstantaneous - rate indicated by flow me	culated using monthly totalizer readings dicated by flow meter during monthly monitoring	

	Discharge			. 6744		
	Limits	1/8/13	2/6/13	3/3/13	4/16/13	
Influent						
200				1	i i	
ADC	AN	6.6	9.1	7.6	7.6	
1,2 Dichloroethane	NA	1.4	1.2	1.1	1,4	
1,2 Dichloropropane	NA	0.99 J	0.97 J	0.87 J	0.9 J	
2-Butanone (MEK)	NA	U(10)	(0t) D	U(10)	(OD) D	
Benzene	NA.	12	8.3	10	7.1	
Chloroethane	NA	U(2)	U(2)	U(2)	U(2)	
Methlyene Chloride	NA	U(I)	0(1)	U(1)	U(I)	
MTBE	AN	CUD	000	000	U(I)	
TCE	AN	000	Ch	000	n C	
Vinyl Chloride	Y	4.4	3.3	0.00		
1.4 Dioxane	AN	3.1	3.2	2.8	00	
SVOCe				2		
Dief Mondell other	NA	11.00 40	11/0 //	17.00 53	2007	
Bis(2 subsidered) whetheless	V V	1100	1160.4)	11 (0.5)	1.6.1	
Metals	4	FA	(1.4.)	(0.4)	0.00	
MATERIES	;	00	-	•		
Arsenic	NA	36	33	40	4	
Beryllium	NA	(E)	(E)	(E)	(i)	
Chromium	YZ	1.93	0 (5)	(S) (A	Q (S)	
Iron	NA	11000	8200	8200	11000	
Lead	NA	2	0.43 J	0.43 JB	0.68 J	
Managanese	NA	3000	2700	3300	3100B	
Nickel	X	20	14	15	13	
Other						
Phosphorus	NA	37	19	25	72	
Efficient						
500	9					
VIDC.	MO	0.63 J	0.57	0.73	0.77	
1,2 Dichloroethane	MO	7	0.96	=	1.1	
1,2 Dichloropropane	MO	(C)	000	(i)	(C)	
2-Butanone (MEK)	MO	0(10)	0(10)	000	0(10)	
Benzene	MO	0.49 J	(i)	0.51 J	(I)	
Chloroethane	MO	U(2)	U(2)	U(2)	U(2)	
Methlyene Chloride	MO	(C)	n(E)	(E)	000	
MTBE	MO	(1)	U(I)	(1)	(i) n	
TCE	MO	CUD	(E)	(i)n	(1)	
Vinyl Chloride	MO	U (0.5)	U (0.5)	U (0.5)	COD	
1,4 Dioxane	MO	1.9	, 24	. 14	2.5	
SVOCs						
Bis/2-chloroethyl) ether	MO	11/96	11(10)	11/96	10611	
Bis/2-ethylhexyl) nhthalate	QW QW	1100	0001	1166	(6611	
Metals			1		(
Arsenie	44/44	0.75 I	0.73.3	-	0.62.1	
Recollium	MO	11(0)	100	TICI	011	
Chromium III	5793/277	(5) (1	0(3)	0 (5)	0 (8)	
Iron	NAC / 1000	11 (50)	(05)11	11 (50)	11 (50)	
To a d	14/05	1 290	1990	OCTO	0.401	
Managamese	MO	4.8	7.0	0.79.1	1.2 IR	
Nickel	1452/161	9.1	923	=	95.1	
Other		i i				
Phosphorus	NAC/18	0(10)	U(10)	O(10)	U (10)	
				-		

Concentrations in µg/L.
U(1)- not detected at limit indicated in parentheses.
J- Estimated value
Discharge Limits - Maximum Daily / Average Monthly
MO - Monitoring Only
NA - Nos applicable
NAC - No applicable
NAC - No applicable oriterion
* Interim arsenic limit

Target Flow 38 0.9-1.2 Rate (gpun) Average Instantaneous Average Instantaneous Jan-13 39.3 40.4 0.7 0.8 Feb-13 31.8 37.1 0.5 0.6 Mar-13 25.1 35 0.5 0.8 Apr-13 33.5 40.6 0.8 1 Instantaneous - rate indicated by flow meter during monthly monitoring		-	MAG	SWLF-2	*	WLF	Total Land	Total Landfill Area System
	-1.3	1-1.4		4		90		51-53
	Instantaneous Average	Instantaneous	Average	Instantaneous	Average	Instantaneous	Average	Instantaneous
	0.8 1.4	1.4	5.9	6.1	6	9.3	56.3	58
	0.6 1.2	1.4	5.2	9	9'9	7.8	45.3	52.9
Apr-13 33.5 40.6 0.8 1 Instantaneous - rate indicated by flow meter during monthly monitoring	0.8 0.5	8.0	5.4	9	6.5	7.4	38	50
Instantaneous - rate indicated by flow meter during monthly monitoring	1 0.7	1.1	4.1	6.3	6.8	9.4	45.9	58.4
	600							
Average - flow rate calculated using monthly totalizer readings								
MIF, SELF-1, SELF-2, SWLF-2 and WLF were redeveloped in late-March, early April.	March, early April.						23	

Cianciarulo, Robert

From:

Golden, Derrick

Sent:

Thursday, May 23, 2013 11:25 AM

To:

Thor Helgason

Cc:

McWeeney, Jennifer (DEP); Weir, Barbara; Chris Allen; Matt Mostoller; Jane Ceraso; Doug

Halley; Muench, Gretchen; Cianciarulo, Robert; info@actonaces.org

Subject:

WR Grace (Acton Plant) Superfund site - Comments on the 2012 Annual Groundwater

Monitoring Report

Attachments:

WR Grace_FINAL_EPA_MassDEP_comts on 2012 GW Mon Rpt_5_23_2013.pdf; WR Grace

2_5_2012_AWD_cmmts_groundwater_2012_mon_report.pdf; WR

Grace MassDEP cmmts on 2012 GW mon report .pdf

Importance:

High

Thor,

Attached are the comments on the 2012 Annual Groundwater Monitoring Report. I have also attached the original comments from the Acton Water District and MassDEP. A hard copy with signature will be mailed out via regular mail.

If you have any question feel free to call me next week to discuss further.

Derrick S. Golden
Remedial Project Manager
United States Environmental Protection Agency
Region 1 - EPA New England
5 Post Office Square
Mail Code OSRR07-4
Boston, MA 02109-3912

Tel: 617-918-1448 Fax: 617-918-0448

e-mail: golden.derrick@epa.gov



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY NEW ENGLAND – REGION 1 5 POST OFFICE SQUARE, SUITE 100 BOSTON, MASSACHUSETTS 02109-3912

May 23, 2012

Mr. Thor Helgason De Maximis 135 Beaver Street Waltham, MA 02452

Re:

Review of the *Operable Unit Three Monitoring Program Report* (including transmittal letter), prepared by Tetra Tech Geo, dated December 2012, W. R. Grace (Acton Plant) Superfund site, Acton & Concord. Massachusetts

Dear Thor.

The Environmental Protection Agency (EPA) and the Massachusetts Department of Environmental Protection (MassDEP) have reviewed the above referenced report. Our following comments also considered various comments and concerns from the Acton Water District and MassDEP Drinking Water Program. Neither the Town of Acton nor the Acton Citizens for Environmental Safety provided comments on this report.

In general, EPA, MassDEP and the AWD are concerned about the 1,4 dioxane concentrations at the site. This concern is warranted because MassDEP anticipates that the Office of Research and Standards will adopt a new lower Method 1 GW-1 standard, of 0.3 part per billion for 1,4 dioxane. This new 1,4 dioxane standard has been proposed as part of the upcoming revisions to the MCP and may be promulgated latter this year. To address this concern we are requiring that Grace perform additional and more frequent sampling for 1,4 dioxane. See Table 1 for a list of sampling locations and frequencies.

The following are our specific comments:

1. Transmittal letter, Additional VOC Sampling in the Area of OSA-13B, p. 1. Following the shutdown of the southern Lagoon Area extraction wells in late 2008, the concentrations of VDC in OSA-13B rose from <1 ug/L (1998 to 2009) to about 100 ug/L in 2010 and 2011, and then to almost 1,000 ug/L in 2012. During the same period, concentrations of vinyl chloride rose from <1 ug/L (1998 to 2009) to about 4 ug/L in 2010 and 2011, and then to about 34 ug/L in 2012. Benzene concentrations remained similar to the pre-shutdown values (about 100 ug/L) in 2010 and 2011, but then fell modestly to about 80 ug/L in 2012. The cover letter indicates that a previously-identified set of nearby wells will be sampled for VOCs in 2013 to provide additional information on the distribution of VOCs in this area: however, neither the cover letter nor the report provides any additional information related to an evaluation of the increasing contaminant concentrations at this well. Please provide relevant available information (e.g., pre-ARS and post ARS startup water quality at the OSA-13 well cluster; timing of appearance of different contaminants in relation to shutdown of SLGP-R and other extraction wells; elevation of contamination in aquifer, elevations and estimated permeabilities of the strata that comprise the aquifer in this area; probable directions of groundwater flow now and before shutdown of extraction wells) and a preliminary evaluation of that information to provide insight into possible sources, extent, and ultimate effects of this contamination. It will be necessary to evaluate whether the

- remedy in this area of the site (Monitored Natural Attenuation) is functioning as intended by the ROD for the next five year review (due in September 2014), and an increasing trend with no apparent explanation could call that into question.
- 2. Section 2.0, Water Level Monitoring, p. 2-1. For some reason the water level monitoring event was not conducted concurrently with the groundwater sampling event. This procedure resulted in a 2 foot groundwater level difference between January and September 2012. All future water level monitoring events need to be conducted as close as possible to the groundwater sampling event.
- Section 4.2.4, Assabet River Area, p. 4-9. In the second paragraph, the summary of vinyl
 chloride does not have a unit of measure associated with it.
- 4. Section 4.2.6, Southeast Landfill Area, p. 4-12. The first paragraph of this section includes a statement that the highest benzene concentrations are detected in the "sands and gravels." While it is possible that this description is being used in a general sense to refer to unconsolidated glaciofluvial deposits, we recommend that in future reports, the actual nature of the aquifer materials (e.g., silty fine sand) be used to describe where the concentrations are highest. The use of the term "sands and gravels" creates an impression of a highly-permeable aquifer which is misleading in this case.
- 5. Figures 2-1, 2-2, 3-2, and 3-3. Some or all of the former extraction wells are shown on these figures with the same symbol as the currently-active extraction wells. We recommend that the former wells remain on the figures, but that a different symbol be used to differentiate them from the active extraction wells.
- 6. Figure 2-4. In order to provide some additional information related to the effects of replacing SWLF-1 with SWLF-2, please include SWLF-1 in the 2013 sampling round, and place at least one PDB in the zone of maximum contamination. Also, during the next year, please perform a brief test in which 1) SWLF-2 is shut down for a day or two and then restarted, and 2) water levels are monitored before, during, and after the hiatus in SWLF-1, SWLF-2, and the LF-19 wells. The data should then be provided to the agencies so that the degree of connections among these wells can be better understood.
- 7. Attachment D, Water Quality vs Time Graphs. The BOS elevation shown on the graph title for B-04B4 is the same as that shown for B-03B3 (93) and is different from the bottom of the open interval (73) presented in Attachment A. Please correct this title in future versions of this report.
- Attachment D, Water Quality vs Time Graphs. The BOS elevation shown on the graph title for OSA-13C is the same as that shown for OSA-13B (105) and is different from the bottom of the open interval (73) presented in Attachment A. Please correct this title in future versions of this report.
- 9. Attachment D, Water Quality vs Time Graphs. In the Monitoring Program Report for 2010 (GeoTrans Inc, Jan 2011), notes were included on the graphs of water quality versus time in Attachment C indicating when the sampling method at the applicable well was changed to PDB. Those notes were not included in the 2011 and 2012 annual reports. Please restore those notes in future reports, since they were occasionally useful in evaluating the data.
- 10. **Table 2-2, Summary of Extraction Rates.** The Christofferson well should indicate and extraction rate of 111 gallons per minute (GPM), not 11 GPM.
- Monitoring Wells which need to be abandoned. The AWD will be constructing a drinking water treatment facility in the vicinity of the Assabet wells. Therefore, the following monitoring wells may need to be abandoned and or replaced. For example, PT-05, A-1E

and AR-01 could be damaged or destroyed. Please inform EPA, MassDEP and the AWD with a recommendation to this comment.

If you have any questions, you may contact me at 617-918-1448.

Sincerely,

Derrick Golden
Remedial Project Manager
Office of Remediation and Restoration
Environmental Protection Agency

cc: Bob Cianciarulo – EPA
Gretchen Muench - EPA
Jennifer McWeeney – MassDEP
Barbara Weir – Metcalf & Eddy
Chris Allen – AWD
Matt Mostoller – AWD
Doug Halley – Acton Board of Health
Jane Ceraso
File – EPA

Table 1
Requested Sampling Locations and Frequency for 1,4 Dioxane
W.R. Grace Superfund Site, in Acton, MA

Locations	Current Sampling Frequency	Requested Sampling Frequency
Southwest Area:		
Assabet 1A	annual	Quarterly
Assabet 2A	annual	Quarterly
R2 (in lieu of WRG-3)	not currently sampled	Quarterly
PT-03-B1	not currently sampled	Annual
B-06-B5	not currently sampled	Annual
B-05-B4	annual	discontinue sampling
B-09-B4	annual	Annual
Northeast Area:		
Christofferson	annual	Quarterly
Lawsbrook	annual	Quarterly
Scribner 1	not currently sampled	Quarterly
Scribner 2	not currently sampled	Quarterly
Scribner 3	not currently sampled	quarterly
Scribner 4	not currently sampled	Quarterly
Scribner combined	annual	Quarterly
AR-28S	annual	Annual
AR-29D	annual	Annual
AR-29SBR	annual	Annual
AR-30D	annual	semi-annual
AR-30SBR	annual	Annual
AR-31D	annual	semi-annual
AR-31S	annual	annual
MW-06S	not sampled	quarterly for 1 year, then re- evaluate
PS-22A	annual	Annual
PS-22B	annual	Annual
PS-29A	annual	Annual
PS-29B	annual	Annual



Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

DEVAL L PATRICK Governor

TIMOTHY P. MURRAY Lieutenant Governor RICHARD K. SULLIVAN JR. Secretary

> KENNETH L. KIMMELL Commissioner

Derrick Golden, Remedial Project Manager United States Environmental Protection Agency New England – Region 1 5 Post Office Square, Suite 100 Boston, Massachusetts 02109 April 25, 2013

Re: Comments on Acton/Grace Draft Operable Unit Three Monitoring Program Report, 2012, and Recommended Modifications to 2013 Annual Sampling Round, Prepared by Tetra Tech GEO, December 20, 2012.

Dear Mr. Golden:

The Massachusetts Department of Environmental Protection (MassDEP) has reviewed the "December 2012 Draft Operable Unit Three Monitoring Program Report, 2012", and "Recommended Modifications to 2013 Annual Sampling Round", prepared by Tetra Tech GEO on behalf of W. R. Grace and Company. Both the MassDEP Bureau of Waste Site Cleanup and MassDEP Bureau of Resource Protection (Drinking Water Program) have reviewed these documents and offer the following comments relating to the presence of 1,4-dioxane in groundwater:

Background: The Acton Water District (AWD) public water system extracts groundwater from 22 active groundwater water supply wells located throughout the Town of Acton, including the Assabet water supply wells (1A and 2A) and the School Street water supply wells (Scribner wells Nos. 1-4, Lawsbrook, and Christofferson). The Assabet and School Street wells have a combined flow of 1.7 MGD and provide water to a population of approximately 21,350 persons.

1,4-dioxane, which has been detected in all of the Assabet and School Street wells, is not removed by the current Assabet or School Street water treatment facilities, nor is it proposed to be removed by the new combined water treatment system (treating water from both the Assabet and School Street wells). Of particular concern are the Scribner wells where dioxane has been detected in two of the four Scribner wells at concentrations exceeding the Office of Research and Standards (ORS) Drinking Water Guideline of 0.3 ug/L.

As previously discussed in our comment letter dated July 30, 2011, MassDEP anticipates that the ORS Drinking Water Guideline for 1,4-dioxane will be adopted as a Method 1 GW-1

groundwater standard, as part of an upcoming revision of the MCP, which may be promulgated later this year.

Comments: MassDEP is concerned about the presence of 1,4-dioxane in and near the AWD's School Street and Assabet water supply wells. Current and proposed water treatment systems do not and will not remove 1,4-dioxane from drinking water. Therefore, MassDEP believes it is essential that dioxane monitoring be increased at the AWD water supply wells, and in nearby monitoring wells. MassDEP requests that the Grace monitoring program be expanded to increase the number of monitoring locations, as well as to increase the monitoring frequency at the AWD's School Street and Assabet water supply wells and several key monitoring wells. These changes are requested to be implemented over a three-year period to evaluate 1,4-dioxane levels in and near the AWD's School Street and Assabet water supply wells. Please refer to the attached table for a summary of the requested changes.

We also request that the results of the monitoring results for the AWD School Street and Assabet water supply wells be reported to AWD and MassDEP Drinking Water Program as soon as the results are available or, at a minimum, within 10 days of the end of the quarterly monitoring period, as per USEPA drinking water regulatory requirements (e.g., if samples are collected within the first Quarter (Q1), which is January - March, then the results should be reported by April 10th). Alternatively, Grace and AWD may wish to enter into an agreement whereby AWD does the monitoring and reporting of the School Street and Assabet water supply wells, and Grace reimburses AWD for the cost of the laboratory analysis. Grace would still be responsible for monitoring and reporting of the monitoring wells.

Please feel free to contact me if you have any questions.

Sincerely,

Jennifer McWeeney, Environmental Analyst

MassDEP, Bureau of Waste Site Cleanup

Jennifer MWeeney

Cc: Marielle Stone, MassDEP BRP/DWP

MassDEP Requested Changes to Dioxane Monitoring Program W.R. Grace Superfund Site. in Acton, MA

Locations	Current Sampling Frequency	Requested Sampling Frequency
Southwest Area:		
Assabet 1A	annual	Quarterly
Assabet 2A	annual	Quarterly
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B-09-B4	annual	Annual
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Christofferson	annual	Quarterly
Lawsbrook	annual	Quarterly
Scribner 1	not currently sampled	Quarterly
Scribner 2	not currently sampled	Quarterly
Scribner 3	not currently sampled	quarterly
Scribner 4	not currently sampled	Quarterly
Scribner combined	annual	Quarterly
AR-28S	annual	Annual
AR-29D	annual	Annual
AR-29SBR	annual	Annual
AR-30D	annual	semi-annual
AR-30SBR	annual	Annual
AR-31D	annual	semi-annual
AR-31S	annual	annual
MW-06S	not sampled	quarterly for 1 year, then re-
X	16 (C)	evaluate
PS-22A	annual	Annual
PS-22B	annual	Annual
PS-29A	annual	Annual
PS-29B	annual	Annual

Water Supply District of Acton

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Mr. Derrick Golden
Remedial Project Manager
United States Environmental Protection Agency
New England – Region 1
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

February 4, 2013

RE: Comments on Acton/Grace Draft Operable Unit Three Monitoring Program Report, 2012, and Recommended Modifications to 2013 Annual Sampling Round, Prepared by Tetra Tech GEO, December 20, 2012

Dear Mr. Golden:

The Acton Water District has reviewed the December 2012 Draft Operable Unit Three Monitoring Program Report, 2012 and Recommended Modifications to 2013 Annual Sampling Round prepared for W.R. Grace and Company. Our comments are provided today via email, and a hardcopy will be provided via mail. All comments are listed by page order.

P. 2-1, Water Level Monitoring section:

The water level monitoring event should continue to be performed in conjunction with the sampling event. This provides for better control of seasonal variations and could help explain changes in contaminant concentrations and geochemical parameters from year to year. Specifically, the report states a two foot groundwater level difference between January and September 2012, this is indicative of the potential impact seasonal variation could have on contaminant concentration and groundwater flow.

P. 3-1, Groundwater Quality Sampling section:

The groundwater samples were reported as being collected between July 26 and October 1, 2012. Similar to our previous comment on water level monitoring, sample collection should be timed to reduce potential seasonal variation in groundwater flow and level.

P. 3-6 to 3-7, Inorganic Compound Sampling section:

The monitoring of Inorganic compounds in the vicinity of the Water District's wells remains an important piece of the monitoring program. The report states that no indication of an inorganic plume migrating towards the public water supply exists. Our concern is not about a plume but the existence of isolated, high concentration inorganics that could impact our compliance with inorganic drinking water regulations, now and in the future. Of particular note is the increased concentration of metals in PS-29B as tabulated in Table A2, up gradient of the Scribner wells.

The IGCL for manganese is 300 ug/L. We would like to reiterate our stance that this should remain the IGCL moving forward as opposed to the 722 ug/L proposed by Grace. This is important given the additional focus manganese is being given in terms of health advisories by State and Federal drinking water regulators in light of new research and understanding of exposure to sensitive populations.

P. 3-10, 1,4-Dioxane Sampling section:

The District would like to reiterate its concern regarding 1,4-dioxane in the School Street wellfield. Although concentrations up to 4 ug/L have been detected in this area, the introduction of 1,4-dioxane in the same portions of the aquifer that the public supply wells are constructed is a concern as a preferential exposure pathway.

P. 4-1, Trend Test section:

One of the conditions for conducting the trend test is annual monitoring of a location since 2004. In an effort to keep the eligible sites for trending in the future, we caution against dropping sampling locations during the annual review.

P. 4-9, Assabet River Area section:

In the second paragraph, the summary of vinyl chloride does not have a unit of measure associated with it. Only a "J" value designation is provided where ug/L should also be included.

Table 2-2. Summary of Extraction Rates, September 10-11, 2012:

The Christofferson well should indicate an extraction rate of 111 gpm for this date.

Please note that due to construction of a water treatment facility in the vicinity of the Assabet wells, some monitoring points could be in jeopardy. Based on Figure 2-1, PT-05, A-1E, and AR-01 could be damaged or destroyed by construction activities. Thank you for providing us with this opportunity to comment on the latest Monitoring Program report for 2012.

Sincerely:

Matthew Mostoller, Environmental Compliance Manager

Chris Allen, District Manager

Cc: Acton Board of Health

Acton Board of Selectmen

Acton Citizens for Environmental Safety

Acton Water District Commissioners

Jennifer McWeeney, MassDEP

Marielle Stone, MassDEP

From:

Weir, Barbara [Barb.Weir@aecom.com] Thursday, May 02, 2013 9:21 AM Golden, Derrick

Sent:

To:

Subject:

RE: Evaluation of Northeast Area Remedial Action, WR Grace Superfund Site, Acton, MA

From:

Golden, Derrick

Sent:

Thursday, May 02, 2013 8:39 AM

To:

'Weir, Barbara'

Subject:

FW: Evaluation of Northeast Area Remedial Action, WR Grace Superfund Site, Acton, MA

Attachments:

Comments-2013-02-25-TetraTechLetter.pdf

Here are the town's comments.

Derrick

Derrick S. Golden
Remedial Project Manager
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Region 1 - EPA New England
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Tel: 617-918-1448 Fax: 617-918-0448

e-mail: golden.derrick@epa.gov

From: Doug Halley [mailto:dhalley@acton-ma.gov]

Sent: Tuesday, April 30, 2013 9:49 AM

To: Golden, Derrick; McWeeney, Jennifer (DEP) (jennifer.mcweeney@state.ma.us)

Cc: Chris Allen; Lydia Duff (Lydia.Duff@grace.com); David Fuerst (dfuerst@oandm-inc.com); Jack Guswa

(<u>JGuswa@jgenvironmental.com</u>); Thor Helgason (<u>thelgas@demaximis.com</u>); Seth' 'Jaffe (<u>SDJ@foleyhoag.com</u>); Robert J.

Medler (Robert.J.Medler@grace.com); 'Sheehan, Anne'; 'Susan Rask'; Matt Mostoller; James Okun;

sanderson@andersonkreiger.com; Steve Ledoux

Subject: RE: Evaluation of Northeast Area Remedial Action, WR Grace Superfund Site, Acton, MA

Derrick and Jennifer,

Attached please find the Town's comments on the February 25, 2013 Tetra Tech Letter recommending shutdown of the Northeast Plume Treatment System at the WR Grace Chemical Plant Superfund site in Acton, MA. A hard copy of our comments will follow through regular mail. We thank you for the opportunity to comment on this recommendation and look forward to hearing both your assessment of the recommendation and your decision.

Doug

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Steven Ledoux Town Manager

TOWN OF ACTON

472 Main Street Acton, Massachusetts, 01720 Telephone (978) 264-9612 Fax (978) 264-9630

April 29, 2013

Mr. Derrick Golden Waste Management Division U.S. Environmental Protection Agency Region I 5 Post Office Square Mail Code OSRR07-4 Boston, MA 02109-3912

Ms. Jennifer McWeeney Bureau of Waste Site Cleanup MA Department of Environmental Protection One Winter Street, 7th Floor Boston, MA 02108

Anne B. Sheehan Senior Hydrogeologist Tetra Tech One Monarch Drive, Suite 101 Littleton, MA 01460

Subject: Town of Acton Comments on February 25, 2013 Tetra Tech Letter Recommending Shutdown of the Northeast Plume Treatment System WR Grace Chemical Plant Site, Acton MA

Dear Mr. Golden, Ms. McWeeney and Ms. Sheehan:

On behalf of the Town of Acton, I am responding to the February 25, 2013 TetraTech letter recommending shutdown, decommissioning and removal of the Northeast Plume Treatment System installed and operated pursuant to EPA's Record of Decision for Operable Unit Three, W.R. Grace & Co. (Acton Plant) Superfund Site (September 2005) (the "ROD"). For the reasons set forth below, the Town objects to the proposed shutdown, decommissioning and removal of the Northeast Plume Treatment System at this time.

The Tetra Tech Report (at page 3) states that, "There has been a significant reduction

¹ The ROD post-dates W.R. Grace's filing chapter 11 bankruptcy proceedings in the United States bankruptcy Court for the District of Delaware, Case No. 01-01139 (JKF) (Jointly Administered). The ROD followed upon the Consent Decree in the matter U.S. v. W. R. Grace & Co., U.S. District Court for the District of Massachusetts, Civil Action No. 80-748-C ("Consent Decree"), and the parallel administrative order issued by the predecessor to the Massachusetts Department of Environmental Protection ("Order").

in VOC concentrations in the Northeast Area as well as some shrinkage of the areal extent of contamination. These reductions are the combined result of natural attenuation and operation of the Northeast Area Remedial Action." Tetra Tech states that "Grace proposes to shut down the Northeast Area Remedial Action," "decommission the system," and "[r]emove the treatment system building and associated underground piping and electrical lines from the Linde-property" (at pages 6-7).

For the following reasons, Grace's proposal is both irresponsible and inconsistent with the requirements of the ROD:

- 1. The ROD (at page 69) summarized the objectives of the Active Remediation Alternative for the Northeast Area as follows: "to protect the municipal water supply by reducing the areal extent of contamination; reduce the mass of contamination in the most concentrated part of the plume; minimize impacts to the School Street wellfield and Fort Pond Brook; and minimize impacts to residential property owners in the Northeast Area by locating remedial system components on industrial property or public lands where technically and administratively feasible."
- Continued operation of the Northeast Area Remedial Action advances these objectives. Dismantling and removal of the system does not.
- 3. The ROD (at page 76) determined that, "Because the aquifer under the Site is classified as a high-yield aquifer within an approved Zone 2 (i.e., a GW-1 aquifer), which is a source of drinking water, MCLs and non-zero MCLGs, established under the Safe Drinking Water Act and MMCLs established by MADEP are ARARs. Groundwater at the Site contributes to an aquifer that is presently used as a community drinking water supply and it is probable that the aquifer will continue to be used as a drinking water supply in the future. Thus, attainment of federal and state drinking water standards shall be a requirement of the groundwater remedy" (emphasis added).
- 4. The federal and state drinking water standards (MCL and MCLG) for Grace's contaminant VDC (1,1-dichloroethylene) are both 7 ppb.³ The federal and state drinking water standards for other volatile organic chemicals that are contaminants of concern for the Grace Site range from 2 ppb (vinyl chloride MCL) to 5 ppb (e.g. benzene MCL). In Table L-4 (at page 191), the ROD specifically established these federal and state drinking water standards as Interim Groundwater Cleanup Levels for the Grace Site.

² The Tetra Tech report does not quantify the extent to which contaminant reduction is due to natural attenuation on the one hand or operation of the Northeast Area Remedial Action on the other.

³ See http://water.epa.gov/drink/contaminants/basicinformation/1-1-dichloroethylene.cfm; http://www.mass.gov/dep/water/drinking/standards/12cisdce.htm.

- 5. At Figure 4, Tetra Tech provides a "Northeast Area Site Map with Distribution of VDC in Groundwater, 2012." This figure confirms that concentrations of VDC exceed 7 ppb in a continuous plume extending from the Grace site to the Lawsbrook and Scribner public drinking water supply wells. The plume appears to be about a mile long and about 1200 feet wide. Within the plume there are zones of VDC concentrations of 30-60 ppb and 60-86 ppb. These concentrations are between 4 to more than 12 times the MCL and MCLGs. The highest concentrations are proximate to the Lawsbrook and Scribner wells, and a substantial area of elevated concentrations exists beneath the residential Lisa Lane area.
- 6. Tetra Tech's report does not address the presence of an additional contaminant, 1,4-dioxane. Dating back to the May 5, 2008 Pre-design Result Report, the Acton Water District has raised concerns regarding the impact of the remedial action on the 1,4-dioxane in this area. Evaluation of the remedial action is incomplete without addressing this contaminant.
- 7. The presence of this extensive plume confirms that the Northeast Area Remedial Action required by the ROD has not restored groundwater within and contributing to the current drinking water supply high-yield aquifer to a "fully usable condition" within the meaning of the ROD, the Consent Decree and the Order. Specifically, the ROD indicates (at pages 90-91) that "the cleanup required in the Consent Decree and presented in this ROD is expected to restore groundwater to meet ARARs as well as meet protectiveness requirements. This means that groundwater will be restored to a level that is protective in accordance with state and federal regulations such as Safe Drinking Water Act, taking into account site-specific conditions." It is beyond dispute that the ARARs set forth in the state and federal drinking water regulations have not been met anywhere within the plume depicted in Figure 4 of the Tetra Tech report. Accordingly, the aquifer has not been restored to a fully usable condition as required.
- 8. The ROD also specifically provides (at page 76) that, "At the time that Interim Ground Water Cleanup Levels identified in the ROD, ARARs, and newly promulgated ARARs and modified ARARs which call into question the protectiveness of the remedy have been achieved and have not been exceeded for a period of three consecutive years, a risk assessment shall be performed on all residual ground water contamination to determine whether the remedial action is protective. This risk assessment of the residual ground water contamination shall follow EPA procedures and will assess the cumulative carcinogenic and non-carcinogenic risks posed by all chemicals of concern (including but not limited to the chemicals of concern identified in this section of the ROD) via ingestion, dermal contact, and inhalation of VOCs from domestic water use. If, after review of the risk assessment, the remedial action is not determined to be protective by EPA, the remedial action shall continue until either protective levels are

achieved, and are not exceeded for a period of three consecutive years, or until the remedy is otherwise deemed protective or is modified. These protective residual levels shall constitute the final cleanup levels for this ROD and shall be considered performance standards for this remedial action" (emphasis added).

- 9. At this time, the Interim Ground Water Cleanup Levels identified in the ROD are being exceeded and have been exceeded continuously at all times since the ROD was issued and the Northeast Area Remedial Action was undertaken. There has not been "a period of three consecutive years" during which these Interim Ground Water Cleanup Levels have not been exceeded. Nor has there been a risk assessment performed on all residual ground water contamination to determine whether the remedial action is protective. As such discontinuance of the Northeast Area Remedial Action is premature and violates the ROD. Rather, the remedial action must "continue until either protective levels are achieved, and are not exceeded for a period of three consecutive years, or until the remedy is otherwise deemed protective or is modified" (ROD at page 76).
- 10. The ROD (at page 69) did anticipate that, "Given the relatively low estimated volume of contamination that remains in the aquifer, EPA assumes that this aggressive targeted pumping would continue for approximately three years. At the end of this three-year timeframe, and, if necessary, every two years thereafter, an evaluation will be conducted to determine if pumping can be discontinued. This evaluation will include the following factors: 1.) input from the AWD regarding yield and drawdown; 2.) contaminant concentrations at each of the three School Street Wells and whether they are meeting, and are expected to continue to meet, MCLs; and 3.) the effectiveness of the extraction and treatment system." (Emphasis added.)
- 11. Under the ROD, the Northeast Area Remedial Action must continue and must be further evaluated every two years:
 - a. Tetra Tech admits (at page 5) that, "Water level and extraction rate data collected by the Acton Water District for the three public water supply wells do not show any obvious impacts to yield or drawdown from operation of the Northeast Area remedial system."

⁴ In the ROD (at page 121), EPA indicates that it "is aware that some MCLs and MCLGs do not meet CERCLA expectations regarding acceptable cancer risk (10⁻⁴-10⁻⁶) or might contribute to a non-cancer hazard index in excess of unity. For this reason, EPA has referred to the cleanup levels in ROD Table L-4, including those characterized by the MCL or MCLG value, as "interim". It is EPA's expectation that after the groundwater remedial action has been implemented, a risk assessment on all residual groundwater contamination will be performed according to EPA risk assessment procedures, for the purpose of evaluating cumulative risk. At that time, if the cumulative risk posed by the remaining compounds in groundwater does not meet EPA's expectation of protectiveness, then the remedy will continue until protective levels have been met or until the remedy is otherwise deemed protective of public health." No such risk assessment has yet been performed.

- b. Tetra Tech Figure 4 confirms that a VOC-contaminated plume about a mile in length continues to extend towards the Lawsbrook and Scribner wells. In the immediate vicinity of the Northeast Area Remedial Action wells (beneath the Lisa Lane area), a concentrated portion of the plume exists with VDC levels between 30-60 ppb (more than 4-8 times the ARAR); and closer to the public water supply wells a concentrated portion of the plume exists with VDC levels between 30-86 ppb (more than 4-12 times the ARAR). The presence of this plume continues to threaten the public water supply wells.
- c. Tetra Tech Figure 5 graphs treatment system performance and groundwater quality since April 1, 2010. An initial 8-month period of rapid change has been followed by a relatively constant but lower rate of change. On average, the initial rapid period of change recovered approximately 6 pounds of contaminant removal (equal to an annualized rate of 9 pounds per year) and the subsequent 24 month period resulted in the recovery of approximately 10 additional pounds (equal to an annualized rate of 5 pounds per year). Figure 5 shows little drop-off in the rate of contaminant recovery since early 2011. Given the inherent variability in the sampling and analysis results for VOCs, Tetra Tech relies too heavily on the 10/2012 and 12/2012 results. Simply put, the extraction and treatment system has been and continues to be effective in removing VOC contamination from the Northeast Area aquifer.

For these reasons, it is premature to terminate operation of the Northeast Area treatment system and remove it completely from the site. The system has contributed and continues to contribute to the decline in Northeast Area contaminant concentrations. The Town of Acton strongly recommends that the system not be removed from the site or in any way discontinued or decommissioned at this time.⁵

⁵ Discontinuance and removal of Northeast Area Remedial Action would also violate the Town's Ground Water Cleanup Standards Bylaw, Chapter R, which provides that, "Any Cleanup performed in the Town of Acton by a person potentially liable under Section 5(a) of General Laws Chapter 21E on, in, at, of or affecting any Resource Area(s) shall on a permanent basis meet or surpass in cleanness the Ground Water Clean Up Standards established by this Bylaw throughout the Resource Area for each and every Contaminant for which the Cleanup is or has been undertaken." The Bylaw defines "Ground Water Cleanup Standards" to mean "Maximum Contaminant Level Goals ("MCLGs") established under the Safe Drinking Water Act for each Contaminant for which an MCLG has been established, see 40 CFR § \$ 141.50 - 141.52" Under Bylaw section 7, "it shall constitute a breach of this Bylaw to discontinue for more than thirty (30) days or to abandon a Cleanup of a Resource Area without meeting the Groundwater Cleanup Standards of this Bylaw"

Please let me know if you have questions on these comments.

Sincerely

Steven Ledoux

Acton Town Manager

C: Lydia Duff, W. R. Grace, 7500 Grace Drive, Columbia, Maryland 21044
Jack Guswa, JG Environmental, 1740 Mass. Ave, Boxborough, MA 01719
Thor Helgason, de maximis, 135 Beaver Street, 4th floor, Waltham MA 02452
Seth Jaffe, Foley Hoag, Seaport West, 155 Seaport Boulevard, Boston MA 02210
Bob Medler, Remedium, 6401 Poplar Avenue #301, Memphis, TN 38119
Susan Rask, Concord Health Department (By email)
Doug Halley, Director, Acton Health Director (By email)
Matt Mostoller, Acton Water District (By email)
Chris Allen, Acton Water District (By email)
James D. Okun, LSP (By email)
Stephen D. Anderson, Town Counsel (By email)

From:

Golden, Derrick

Sent:

Thursday, May 02, 2013 8:37 AM

To:

'Weir, Barbara'

Subject:

RE: Acton Water District Northeast Area Treatment Evaluation Comments

Hi Bar,

Sorry about that. I was trying to use remote e-mail instead of my EPA laptop and was having some issue. I will forward off Doug's comments in a separate e-mail.

And yes, the weather has been great! I ended up taking the Kayak out with a friend yesterday and went up to the state park in our town.

Talk with you soon.

Derrick

Derrick S. Golden
Remedial Project Manager
United States Environmental Protection Agency
Region 1 - EPA New England
5 Post Office Square
Mail Code OSRR07-4
Boston, MA 02109-3912

Tel: 617-918-1448 Fax: 617-918-0448

e-mail: golden.derrick@epa.gov

From: Weir, Barbara [mailto:Barb.Weir@aecom.com]

Sent: Wednesday, May 01, 2013 4:38 PM

To: Golden, Derrick

Subject: RE: Acton Water District Northeast Area Treatment Evaluation Comments

Hi Derrick,

Thank you for sending these along.

You mentioned sending Doug's comments too, and I wanted to let you know I have not seen those as of yet – in case you tried to email them and it did not work for some reason.

At least you are getting nice days for the furlough so hopefully can enjoy yourself a bit (and not just do yard work!).

From: Golden, Derrick [mailto:Golden.Derrick@epa.gov]

Sent: Wednesday, May 01, 2013 8:34 AM

To: Weir, Barbara

Subject: FW: Acton Water District Northeast Area Treatment Evaluation Comments

Hi Barb,

I'm forwarding you the comments from Mat on the NE area shutdown. As I expected, the AWD wants to shut it down and the town wants to keep it running. I'll forward off Doug's comment seperately. I am taking furlough day today and tomorrow so lets touch base next week. Thanks

Derrick

From: Matt Mostoller [Matt@actonwater.com]
Sent: Tuesday, April 30, 2013 3:08 PM

To: Golden, Derrick

Cc: McWeeney, Jennifer (DEP); Jane Ceraso; Chris Allen; bos@acton-ma.gov; marielle.stone@state.ma.us; Doug Halley;

<u>Iphillips@lenphillips.com</u>; <u>sstuntz@acornlab.com</u>; <u>ronaldparenti@comcast.net</u> **Subject:** Acton Water District Northeast Area Treatment Evaluation Comments

Derrick,

Attached are the Acton Water District's comments on the Evaluation of Northeast Area Remedial Action, dated February 25, 2013. Please contact me if you have any questions regarding our comments. As always, thank you for the opportunity to comment on the on-going cleanup at the WR Grace Superfund Site.

-Matt

Matthew Mostoller

Environmental Compliance Manager Water Supply District of Acton 693 Massachusetts Avenue P.O. Box 953 Acton, MA 01720 P 978-263-9107 F 978-264-0148

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From:

Sent:

To:

Subject:

Golden, Derrick Thursday, May 02, 2013 9:20 AM 'Weir, Barbara' RE: Evaluation of Northeast Area Remedial Action, WR Grace Superfund Site, Acton, MA

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From: Suden, Dencar [mail/m/Golgen Bertall Squagev]

For West Burbans

Subject -- A Employed of Nathropes Area remedial Action, WE Grace Superfood Site. Action, MA

and the state of t

From:

Golden, Derrick

Sent:

Thursday, May 02, 2013 10:20 AM

To:

Thor Helgason

Cc:

'McWeeney, Jennifer (DEP)'

Subject: Voice Message

Hi Thor,

I just picked up your voice message. Sorry for not responding sooner but I had to take some furlough days due the sequestration/federal budget issues.

We will be basing the shut down request mostly on the technical requirements of the ROD and the technical data that was provided by Grace to support the shutdown request. I will need to touch base with AECOM about their technical review of the petition also. I will also send you the AWD comments, which differs from the town.

For our review it would be helpful to have an e-mail from you which provides Grace's thoughts/responses on the letter from the town. It does not need to be a formal letter. My intent is to provide you with EPA comments on the annual groundwater report before we comment on the NE area petition. I had been waiting from comments from the drinking water folks at MassDEP, which I recently received and plan to work on that next week.

Derrick

Derrick S. Golden Remedial Project Manager United States Environmental Protection Agency Region 1 - EPA New England 5 Post Office Square Mail Code OSRR07-4 Boston, MA 02109-3912

Tel: 617-918-1448 Fax: 617-918-0448

e-mail: golden.derrick@epa.gov

From:

Golden, Derrick

Sent:

Thursday, May 02, 2013 11:31 AM

To:

Thor Helgason

Cc:

'McWeeney, Jennifer (DEP)'

Subject:

FW: Acton Water District Northeast Area Treatment Evaluation Comments

Attachments:

AWD NE Area Evaluation Comments.pdf

FYI, Comments from the AWD.

Derrick S. Golden
Remedial Project Manager
United States Environmental Protection Agency
Region 1 - EPA New England
5 Post Office Square
Mail Code OSRR07-4
Boston, MA 02109-3912

Tel: 617-918-1448 Fax: 617-918-0448

e-mail: golden.derrick@epa.gov

From: Matt Mostoller [mailto:Matt@actonwater.com]

Sent: Tuesday, April 30, 2013 3:08 PM

To: Golden, Derrick

Cc: McWeeney, Jennifer (DEP); Jane Ceraso; Chris Allen; bos@acton-ma.gov; marielle.stone@state.ma.us; Doug Halley;

<u>Iphillips@lenphillips.com</u>; <u>sstuntz@acornlab.com</u>; <u>ronaldparenti@comcast.net</u> **Subject:** Acton Water District Northeast Area Treatment Evaluation Comments

Derrick,

Attached are the Acton Water District's comments on the Evaluation of Northeast Area Remedial Action, dated February 25, 2013. Please contact me if you have any questions regarding our comments. As always, thank you for the opportunity to comment on the on-going cleanup at the WR Grace Superfund Site.

-Matt

Matthew Mostoller

Environmental Compliance Manager Water Supply District of Acton 693 Massachusetts Avenue P.O. Box 953 Acton, MA 01720 P 978-263-9107 F 978-264-0148

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recipient or such recipient's employee or agent, you are hereby notified that any dissemination, copy or disclosure of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately at (978) 263-9107 or via return internet email to sender and expunge this communication without making any copies. Thank you for your cooperation

Water Supply District of Acton

693 MASSACHUSETTS AVENUE P.O. BOX 953 ACTON, MASSACHUSETTS 01720-0953

TELEPHONE (978) 263-9107

FAX (978) 264-0148

Mr. Derrick Golden
Remedial Project Manager
United States Environmental Protection Agency
New England – Region 1
5 Post Office Square, Suite 100
Boston, Massachusetts 02109-3912

April 30, 2013

RE: Comments on the Evaluation of Northeast Area Remedial Action, W.R. Grace Superfund Site, Acton, Massachusetts, Prepared by Tetra Tech, February 25, 2013

Dear Mr. Golden:

The Acton Water District (District) has reviewed the February 2013 Evaluation of the Northeast Area Remedial Action prepared for W.R. Grace and Company. Our comments are provided today via email, and a hardcopy will be provided via regular mail. All comments are listed by page order.

P. 1. Background section:

This section does not mention or address the presence of 1,4-dioxane in this vicinity. Dating back to the May 5, 2008 Pre-design Result Report, the District has been raising concerns regarding the impact of this system on the 1,4-dioxane in this area. Evaluation of this remedial action is incomplete without addressing this contaminant. Since the startup of the Northeast area system, both the District and the Massachusetts Department of Environmental Protection (MassDEP) Drinking Water program have become increasingly concerned with the lack of active remediation for this contaminant.

P. 2, Northeast Area Remedial Action Evaluation section:

Data used in this evaluation is only through December 2012. The District again finds this evaluation incomplete based on not having a full 3 years of operating data to consider. When the April data is available, a full evaluation, including the presence of 1,4-dioxane and VPH/EPH constituents should be completed for stakeholder and regulatory review.

P.3, Effectiveness of the extraction and treatment system section:

The discussion of areal extent does not reflect changes in the monitoring wells used during the 10+ years of monitoring nor does it reflect the seasonal variation of when samples were collected. Figure 1 reflects data collected over the course of two years during the early summer while Figures 3 and 4 utilize data from single years during the late summer and early fall. It would be typical to expect seasonal variations in water quality from early summer to late fall due to changes in the groundwater table.

P. 5, School Street Well Field Water Quality section:

Based on the water quality data discussed in this section and presented in Figure 6 for the Lawsbrook and Scribner wells, no positive impact on water quality is apparent. The report states that concentrations of VDC at these wells have been below the Interim Groundwater Cleanup Level (IGCL) since 2007. Based on historic concentrations of VOCs above the IGCL at the Scribner well, we disagree with the statement that it is unlikely to see elevated levels in the production wells again. Additionally, the Christofferson well has not been pumped extensively during the period of evaluation and the return of this well to full service will more than likely change conditions in the aquifer.

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P.6, Recommendations section:

The Water District agrees with the conclusion to suspend operations of the Northeast Area treatment system. However, we disagree on the need to further evaluate the impact this has on the aquifer. For a period of 6 months after any shutdown of the system, additional groundwater monitoring should be completed to evaluate how the plume responds. Most importantly, we disagree with any action that involves dismantling the treatment facility or abandoning the extraction and injection wells. Ongoing concerns with the presence of 1,4-dioxane in the Northeast area could benefit from the presence of this infrastructure. The addition of an advanced oxidation process to the existing process equipment could help reduce concentrations of this contaminant associated with the migrating plume of VDC in this area. Although 1,4-dioxane was not explicitly cited in the Record of Decision (ROD), we feel that in the near future, this contaminant should be considered for further cleanup in this portion of the site.

Although the District identified areas of incompleteness in this evaluation, our concern for the impact of 1,4-dioxane is clear. It is our belief that the Northeast area treatment system could be shut down without impacting the ROD mandated cleanup, pending further evaluation and monitoring of the remaining plumes in the School Street aquifer. We agree with the Town of Acton's recommendation that the treatment equipment remain in place should on-going monitoring necessitate reactivation. Thank you for providing us with this opportunity to comment on the Northeast Area Remedial Action Evaluation.

Sincerely

Matthew Mostoller, Environmental Compliance Manager

Chris Allen, District Manager

Cc: Acton Board of Health

Acton Board of Selectmen

Acton Citizens for Environmental Safety

Acton Water District Commissioners

Jennifer McWeeney, MassDEP

Marielle Stone, MassDEP